

REMARKS/ARGUMENTS

1. Claim Amendments

The Applicant has amended claims 1, 3-5, 6, and 8-10 and claims 2 and 7 have been canceled. Applicant respectfully submits no new matter has been added. Accordingly, claims 1, 2-6 and 8-10 are pending in the application. Favorable reconsideration of the application is respectfully requested in view of the foregoing amendments and the following remarks.

2. Examiner Objections - Claims

Claims 5 and 10 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot depend from any other multiple dependent claim. Claims 1-10 are objected to because of the following informalities: the phrase "characterized in" does not positively recite the limitations. The Applicant appreciates the Examiner's thorough review of the claims. The Applicant has amended claims 1, 3-6 and 8-10 as suggested by the Examiner in order to correct the informalities. Claims 2 and 7 have been canceled. The Examiner's consideration of the amended claims is respectfully requested.

3. Claim Rejections – 35 U.S.C. § 103 (a)

Claims 1-4 and 5-9 rejected under 35 U.S.C. 103(a) as being unpatentable over Yaguchi (U.S. Patent 6,980,584) in view of Subrahmanya (U.S. Patent 6,807,429). The Applicant has amended claims 1 and 6 to better define the intended scope of the claimed invention. The cited references, in combination fail to disclose or suggest the present invention as claimed in amended, independent claims 1 and 6.

Yaguchi, US Patent No. 6,980,584 ("Yaguchi") discloses a method for deciding if interpolation or averaging should be used in performing channel estimation. A bit error detector (BER) is used in Yaguchi for determining if interpolation or averaging should be used in the channel estimation. Col. 4, lines 1-6 provide:

The BER obtained by the primary interpolation method and the BER obtained by the double slot averaging method are input to a comparator 111. The comparator 111 controls a switch 112 to select the output from the symbol decision 5 device 104 or 109 which is obtained by the interpolation method with a lower BER.

In contrast, in the present invention, a block error rate (BLER) target value is used to determine how the soft values should be scaled. BLER is a parameter set by the network. As noted on page 2, lines 26-29:

According to the invention the object is achieved in that the method further comprises the steps of receiving from said network a target value for a block error rate of the transmission channel; and selecting said second number of bits in dependence on said target block error rate value.

The advantages of using BLER instead of a measured or estimated parameter (such as the BER of Yaguchi) is clearly described on page 9 rows 17-23 of the present application:

By using the information about the target BLER value and a look-up table, the scaling factor can be optimized for several target BLER values compared to the situation where only one scaling factor is used. The better performance is achieved with the use of only slightly higher amount of computational resources. Thus the suggested solution requires much less complexity than the use of adaptive algorithms, which continuously estimate e.g. the signal-to interference ratio or the actual block error rate.

The scaling is the same as shifting the bits. The scaling, now included as a limitation of claims 1 and 6, is performed to maximize the use of the limited bit width that is used to represent the soft values.

Subrahmanya is directed to problems associated with a soft handover, not channel estimation. More specifically, Subrahmanya describes a method for soft handover, where signals from different base stations are scaled differently to achieve better decision metrics. The use of soft values in Subrahmanya is not applicable to the context described in the present invention, and as such, one skilled in the art would not combine the teachings of Subrahmanya with Yaguchi to obtain to the present invention.

Claims 3-5 depend from amended claim 1 and recite further limitations in combination with the novel elements of claim 1. Claims 8-10 depend from amended claim 6 and recite further limitations in combination with the novel elements of claim 6. Therefore, the allowance of claims 1, 3-6 and 8-10 is respectfully requested.

4. Prior Art Not Relied Upon

In paragraph 6 on page 6 of the Office Action, the Examiner stated that the prior art made of record and not relied upon is considered pertinent to the Applicant's disclosure. None of the cited references alone disclose the invention, or in combination disclose or suggest the present invention as claimed.

CONCLUSION

In view of the foregoing remarks, the Applicant believes all of the claims currently pending in the Application to be in a condition for allowance. The Applicant, therefore, respectfully requests that the Examiner withdraw all rejections and issue a Notice of Allowance for all pending claims.

The Applicant requests a telephonic interview if the Examiner has any questions or requires any additional information that would further or expedite the prosecution of the Application.

Respectfully submitted,



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